



A18.1816-A

Questioned Document Examination System

Instruction Manual



To ensure the safety and obtain satisfactory performance, please study this instruction manual thoroughly before start to use the instrument.

Introduction

A18.1816 Questioned Document Examination Analyzer is an ideal tool to inspect, observe and compare many kinds of objects, evidences including:

- All kind of questioned documents: Used of different kinds of writing instruments, by adding, altering, conceal, forgery and other methods of fade contract, IOUs, real estate contracts, invoices, bills of exchange, checks, bills of lading, passports and so on.
- Various fluorescent encryption securities: checks, stocks, credit cards, stamps and special trademarks
- Identify cards, resident identify cards, temporary residence permits, etc.
- Currency: US Dollars, H.K. Dollars, RMB, etc.

Function

- Fluorescent light source with multi excitation and receiving filter combinations, can exam and compare the different inks used on documents
- Reflect light and receiving filter combination, can exam the reflection and absorption of different wavelengths on different inks.
- Reflect light and receiving filter combination, can exam the transmission of different wavelength infrared light on the different inks.
- Transmit light and receiving filter combination, can exam the transmission of different wavelength infrared light on the different inks
- Reflect side light can exam the scratch, cut marks on documents.
- Transmit light can illuminate from the bottom side to exam the scratch, cut marks on documents.

Installation

- Put A18.1816 Questioned Document Examination Analyzer and laptop on desktop.
- Connect the video signal line to the video capture card, and then insert video capture card into USB port of laptop.
- Connect the analyzer and laptop to the main socket, and turn the power on.
- Install the driver of video capture card in the laptop, with the driver CD attached in the video capture card box.
- Install the Crime Image software into laptop. The software must be used with the soft dog inserted to the laptop USB port. For the details of software, please refer to the Crime Image instruction manual.

Control Panel



- Turn the power switch on the right side of the analyzer. Then press the power button on the front panel, the analyzer will be on. Choose the different light source and receiving filters according to different documents and objects.
- The control panel buttons are as below:
 1. Transmitted Light _ White : Turn on the bottom white light.
 2. Transmitted Light _ UV : Turn on the bottom UV light 254nm.
 3. Reflected Light _ UVC : Turn on the upper short-wave ultraviolet light 254nm
 4. Reflected Light _ UVA : Turn on the upper long-wave ultraviolet light 365nm
 5. Reflected Light _ Side : Turn on the upper visible light
 6. Reflected Light _ Diffuse : Turn on the upper fluorescent light
 7. Excitation : Choose the excitation light wavelength by press buttons
 8. Receiving : Choose the receiving filter by press buttons
 9. Zoom : Zoom in or out by press buttons

Function

In add, overwrite the file test, to determine the add, rewritten fact , is to determine the suspect to add on to rewrite the original handwriting strokes with the file with the same strokes are only writing pen once formed one of the most direct way is to write two identification Are part of handwriting strokes pigment composition identical text . When the apparent color of the same color to add or rewrite the text and the original text coloring or similar stroke when added to determine whether there is rewriting the facts observed with the naked eye under visible light cannot be judged . At this time, without damaging the test materials were detected with the text inspection instrument is the most intuitive, the best way. Although due to different apparent color toner text identical or similar , but the results of the infrared effect may appear completely absorbed , absorption half , a small amount of absorbed or not absorbed completely

different conditions , the intensity of fluorescence generated in the excitation light under the action of different or may be a different color , and so on . The document retrieval instrument is able systematically to all types of writing materials integrated color separation, ultraviolet, infrared, fluorescence testing, through careful, detailed test can detect the same or similar color writing materials absorb different wavelengths of light, nuances reflection, transmission and fluorescence effects on, and this difference will be visually displayed on the display, to obtain an ideal test results.

Below are samples to choose light source according to different objects.

Objects	Light Source	Excitation	Receiving	Exam
Distinguish altered or added text by different kinds of ink	Excitation	485-550 nm	700-900 nm	Alter
Natural subside text on thermal paper, carbon paper	Excitation	480-550 nm	700-740 nm	Subside
Phosphor fingerprint	Excitation	480-550 nm	700-740 nm	Fluorescent
Multilayer indentation	Reflected Light _ Side	000nm	900nm	Indentation
Text on the black cloth	Reflected Light _ Side	000nm	900nm	Covered Text
Text in the Kraftpaper envelopes	Transmitted Light _ UV	000nm	900nm	Transmit
Correction Fluid	Transmitted Light _ UV	000nm	900nm	Alter
Security Trademark	UVC	000nm	000nm	Real/False
Currency Fluorescent	UVA	000nm	000nm	Fluorescent

Specification

- Light Source System
 1. Main Light Source : 1x 24V/150W Halogen Lamp, with cooling fan, focusing lens, and heat-resistance glass cover
 2. UVC: short-wave ultraviolet light 254nm, 1x10W
 3. UVA: long-wave ultraviolet light 365nm, 1x10W
 4. Upper visible side light: 1x50W, with lamp holder which can adjust position and angle freely, used to check indentation
 5. Diffuse Light: Fluorescent light 1 pc
 6. Transmitted UV light 2x10W
 7. Transmitted white light 2x20W

8. Excitation Wavelength: 000nm、365nm、450nm、465nm、515nm、530nm、565nm、580nm、900nm
9. Receiving Filter: 000nm、415nm、450nm、565nm、700nm、720nm、740nm、800nm、900nm

- Video Camera System

1. High sensitive, high resolution 1/3" CCD color digital camera, 650 lines, sensitivity 0.001 Lux, especially sensitive to Near-infrared and visible spectral bands light source.
2. Electrical zoom lens, aperture 1.2, zoom ranges 1~30x.

Packing List

No.	Parts	Qty	Remark
1	Main Body	1	
2	Laptop	1	Optional
3	High Resolution Color CCD Camer	1	Built-in
4	Crime Image Software	1	CD, Soft Dog
5	254nm UVC Bulb	1	
6	365nm UVA Bulb	1	
7	Fluorescent Bulb	1	
8	50W Side Bulb	1	
9	24V\150w	1	
10	12V20W Halogen Lamp	1	
11	Frosted Glass Stage Plate	1	
12	Press Bars	2	
13	Wire Cord	1	
14	Video Cord	1	
15	Video Capture Card	1	Including Driver CD
16	Instruction Manual	1	
17	Dust Cover	1	